

CODE LINK

STATE OF OREGON • BUILDING CODES DIVISION

SPRING 2005

BCD legislative agenda

By Mark Long, administrator



The Building Codes Division's legislative agenda reflects our values of consistency, customer service, and compliance, and our goal to work with our partners to streamline the regulatory process.

It has become very clear to me during the two years that I've served as administrator that our customers want timely and predictable services; flexible, solution-driven assistance; and accountability from their state and local building departments. We are committed to continuing to build on the foundation of our 2003-05 successes:

- Increased the sales (or scope) of building permits that can be used by contractors in multiple jurisdictions for minor construction work. Our target sales growth was projected at 2 percent. The result: an increase of 33 percent from 2003 to 2004.
- Implemented HB 2564 to consolidate electrical, boiler, and plumbing business licenses, and instituted a single renewal date. This simplifies the system for contractors who have two or more licenses in these fields.

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- Reduced the number of Oregon modifications to the national codes by 30 percent. This simplifies the process for builders and reduces the need for continuous training on modifications, and promotes statewide consistent application of code.
- Consolidated 26 plumbing fees into eight, making it easier for our customers to calculate the cost of required permits. The new fee schedule was designed to be revenue neutral.
- Implemented two new Web-based interactive programs related to licensing and permitting to enhance service and reduce the regulatory burden to our customers. “[Licensing Online](#)” allows licensees to apply, renew, update, and pay for a license (and eventually certifications) online. The division launched the one-stop permitting center, “[Oregon Building Permits Online](#),” and is working with several tri-county jurisdictions to add over-the-counter plumbing, electrical, and mechanical permits.

We are also working to do the following:

- Change the inspector certification program to rely more on national certifications and to ensure that inspectors who write violations cite the code that has been violated.
- Create a code-interpretation process that is proactive, consistent statewide, and intended to clarify code requirements.

The division’s legislative agenda consists of three bills that reflect our dedication to regulatory streamlining, consistency, and customer service.

HB2179 — Allows the director of the Department of Consumer and Business Services to establish alternative regulatory options for the purpose of encouraging emerging technologies. Because the current approval process can take six months or longer and can delay construction, the division is proposing an expedited method for approving new products and technologies.

HB2180 — Current law requires an annual inspection of every elevator in Oregon regardless of the elevator type or use. Elevators that rise only a few feet and elevators that rise several stories are inspected annually. The policy objective of House Bill 2180 is to enable the division by administrative rule to set the priority and frequency of elevator inspections with the approval of the Elevator and Electrical Board. This change not only allows the division to focus its efforts on life safety, but also allows us to adjust workload to our increasing inspection demand.

HB2181 — The Building Codes Division administers 85 active license types and licenses to about 42,000 workers and businesses throughout the state. The division’s licensing authority derives from seven different chapters of the statutes. Over time, differences have developed among programs in terms of license application, testing, expiration, and method of enforcement. The intent of this legislation is to ensure that all entities responsible for licensing trades professionals use uniform criteria for administering licenses to eliminate inconsistent licensing regulations. Licensing consistency enables the division to use licensing software effectively, without costly programming for 85 license types. It is important to note that this bill sets consistent uniform administrative procedures for licensing and does not change substantive criteria or the scope of any license.

The division is tracking several bills related to Building Codes listed on our Web site, bcd.oregon.gov for your convenience. ■

Online permitting is coming

By Nathan Phillips, Electrical Board Chairman

Joanie Stevens-Schwenger, Tri-County Service Center Manager



As part of the governor's regulatory streamlining project, Oregon's Building Codes Division is implementing the first stages of a statewide Web-enabled system for purchasing building permits. When fully implemented, this system will allow contractors to purchase minor labels and building permits, submit plans, request inspections and check permit status electronically in any jurisdiction. While it will take years and considerable funding to reach this goal, the first steps have been implemented.

[Online purchasing of plumbing and electrical statewide minor labels](#) became available in December 2004. Contractors who have registered for the system by calling the Tri-County Service Center, (503) 872-6731, can now use credit cards to purchase sheets of minor labels valid throughout the state. The labels are mailed to contractors.

The next phase of the implementation of online permitting is the tri-county pilot program, [Oregon Building Permits Online](#). The tri-county e-permitting pilot program is a multi-phased project to create a Web site that does the following:

- Allows contractors to easily apply and pay for "over-the-counter" (non-plan-review) permits in several tri-county jurisdictions.
- Locates building departments through an address-based search.
- Links customers to useful information such as when permits are required, local city codes, and contractor license verification.

The tri-county e-permitting pilot will be implemented in phases, starting with smaller, easier functions and expanding when phases prove successful. Plans include expanding to jurisdictions statewide and allowing customers to apply for and purchase complex permits, request inspections, submit plans, and process licensing and compliance activities.

The e-permitting pilot involves six jurisdictions in the Portland area: the cities of Portland, Beaverton, Milwaukie, and Hillsboro; and Clackamas and Washington counties. The division is implementing the pilot program in two phases. The first phase, launched in January, allows contractors to do the following:

- Purchase minor labels
- Get information about purchasing electrical, plumbing, and mechanical permits in the pilot jurisdictions
- Enter an address and determine the jurisdiction for the project (Address Locator)
- Link to permit forms and the pilot jurisdictions

This pilot program is helpful to contractors determining which of the many tri-county building departments has jurisdiction over a particular project. It will help BCD determine how to implement the statewide system.

The next phase of the tri-county pilot program, scheduled to start in May, will allow the online purchase of permits usually sold over the counter. Initially, this system may be available only to contractors for purchasing the most common plumbing, electrical, and mechanical permits. Users will be able to go online, complete a permit application, pay by credit card, and request an inspection.

The plan is to eventually expand the system to include jurisdictions statewide. The site will include links to the new licensing system at BCD and many other useful functions. ■

Statewide electrical, plumbing, residential, and elevator codes slated for April 1 adoption

Joanie Stevens-Schwenger, Tri-County Service Center Manager



On April 1, 2005, Oregon is scheduled to adopt four new statewide codes, the Oregon Electrical Specialty Code, the Oregon Plumbing Specialty Code, the Oregon Residential Specialty Code, and the Oregon Elevator Specialty Code.

The 2005 OESC is based on the 2005 National Electrical Code as published by the National Fire Protection Association. Among other things, the new electrical code does the following:

- Corrects references to other codes and publications.
- Updates and clarifies amendments to meet current statutory requirements.
- Requires the installation of a ground-fault-circuit-interrupter receptacle (GFCI) on the exterior of each dwelling unit of a multifamily dwelling when the dwelling is at grade level and has an individual exterior entrance.

The 2005 OPSC is based on the 2003 Edition of the Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials. The 2005 OPSC is a significant revision from the previous edition, and it includes the following provisions:

- Clarifies drainage clean-out and self-closing lavatory faucet requirements.
- Removes references to mechanical, structural, and other non-related code provisions.
- Updates plumbing product standards.
- Allows flammable vapor-ignition-resistant, fuel-fired water heaters to be installed at garage floor level.
- Adopts model code medical gas and vacuum systems standards, model code storm-water and rain-drain provisions, standards for elevator pit drain and model

code provisions for fire-stopping installations for plastic piping.

The 2005 ORSC is based on the 2003 edition of the International Residential Code for One- and Two-Family Dwellings, as published by the International Code Council and amended by the Building Codes Division with the following:

- Plumbing provisions based on 2003 Edition of the Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials and amended by the division.
- Electrical provisions from the 2005 edition of the NFPA 70A, National Electrical Code Requirements for One- and Two-Family Dwellings, excerpted from the 2005 National Electrical Code (NFPA 70-2005), and amended.
- Certain provisions of the 2004 OSSC for apartments and certain multi-family dwellings.

The 2005 Oregon Elevator Specialty Code is based on the 2004 edition and addenda of the elevator safety standards published by the American Society of Mechanical Engineers (ASME), including 2004 ASME A17.1 and 2002 ASME A17.3. with amendments that include the following:

- Part I Vertical Reciprocating Lifts, and OAR chapter 918 Division 400, is amended to incorporate the latest standards and safety enhancements.
- A17.1, 2004, is amended so as not to remove the requirement for fire-alarm-initiating devices at open-air lobbies. This amendment mirrors previous versions of A17.1 that did not require these devices in open-air lobbies. ■

Highlights of BCD's customer-service surveys



Customer service is one of the division's key initiatives and performance measures.

Among other actions, BCD is working to increase its outreach to constituents and stakeholders through boards and public meetings, it has surveyed permit holders to determine service levels, opened the Tri-County Service Center (2000) to focus on better service delivery to industry, and recently assembled the Construction Industry Policy Advisory Committee, a group of stakeholders that participates in policy discussions.

As part of its customer service initiative, BCD conducted a survey last summer to find out how licensees and certified individuals rated its customer service. Surveys were sent to about 4,000 licensed and certified individuals who were asked to assess the section's overall service, technical knowledge, turnaround time to process paperwork (including licenses and renewals), how they find information, and whether the information is clear and easy to understand. The survey consisted of 13 questions and asked respondents to rate 11 services and 11 customer-service attributes of staff. Survey results were tabulated and analyzed by the department's Information Management Division in January.

Survey Highlights

Surveys were sent to about 4,000 licensees and certified individuals, with a 31-38 percent response rate.

- Customer service was measured with a set of questions corresponding to five key service areas: knowledge, courteousness, responsiveness, communication, and flexibility. The agency performance measure (average share of customers giving the highest rating) ranged from 25-31 percent, overall. The share of customers rating BCD service at "above average" or "better" ranged between 84 and nearly 89 percent.

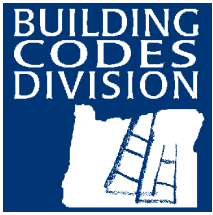
- Customers rated "accurate information" as the most important service area, with "follow-through" next in importance. "Courteous staff" was the area rated highest in performance. The areas of "understandable information," "follow-through," and "accurate information" showed the widest difference between rated importance and performance.
- About 53 percent of customers surveyed said licensing process time met expectations. Over a third (34 to 42 percent) said it took longer than expected.
- Among optional additional comments provided by respondents, "happy with service" was the largest category, followed by two categories related to concerns over continuing-education courses.

"We're proud of our licensing program's high approval ratings," said Mark Long, division administrator. "We anticipate that the implementation of the online [Licensing Online](#) program and online permit programs will provide added services and benefits to our customers."

This year, the division will evaluate survey results, focusing on customer-service strengths and weaknesses, and other service areas it can evaluate and improve. ■

Code interpretation process

Alan Seymour, Oregon Department of Energy



The division is working to create a code interpretation process that is timely and inclusive — with minimal “red tape” that allows direct access to the process to anyone who has a code concern. In fact, the only “red tape” will be a requirement to submit all code-interpretation requests in writing.

With the goal of consistent application of code statewide, the division is working with the chief inspectors, industry, and local government to develop a standard code-interpretation process across programs. The division is committed to answering code interpretation questions quickly and thoroughly, communicating the results, and moving projects ahead with fewer delays and disputes.

Code interpretation Q and A

Q What is the intent of issuing interpretations?

A Formal interpretations are intended to provide an explanation of the meaning or intent of specific code provisions or sections in a timely manner to ensure their consistent application statewide. Interpretations clearly respond to code questions and explain the analysis for the decision.

Q What types of issues are accepted for interpretation?

A A code interpretation question must request the clarification of a single section or provision of the code.

Q What questions will not be considered for code interpretation?

- Questions involving a determination of compliance of a design, installation, or product or equivalency of protection of health or safety (alternate method).
- Questions involving a review of plans, specification or field knowledge by on-site inspection (no code disputes).
- Questions considered to be clearly and decisively stated in the current code.
- Questions not addressed in the current code that require adoption of new code language or provisions.

Q How can I request a code interpretation?

A Currently, code interpretation requests must be submitted to the code chief of the appropriate program. Requests should include a single question about a specific section or provision of the code: a brief explanation of the situation, if there is an example; and which edition of the code your question refers to. The chief inspector may respond to a request without a formal interpretation if the issue can be answered with a yes or no, based on code language.

Q How are interpretations published and communicated?

A Formal written code interpretations are communicated to the requestor, published in [Code Link](#), distributed to building officials of inspecting jurisdictions statewide, and posted on the division's [Web site](#). ■

Plumbers can now renew licenses online

Joanie Stevens-Schwenger, manager, Tri-County Service Center



“Licensees asked us to simplify and speed up the process — and we’re listening,” says enforcement and licensing manager Laurie Skillman. “Now license renewers are just a few clicks away, so don’t delay taking a look at the new online system.”

Regulatory streamlining is more than a buzz word at Building Codes Division this year. Live this February is “[Licensing online](#),” which allows licensees to apply, renew, update and pay for a license (and eventually certifications) online. Journeyman plumbers can use the system now. Electrical contractors and general supervising electricians are the next groups in line for the system. Other licensees and certified individuals are slated for later this year. Check the Web site for more information.

Site instructions

The site is secure and easy to understand. In order to renew online, customers will need a Visa or MasterCard credit card, their Social Security number, and the personal identification number (PIN) from their renewal notice.

Following are the easy steps for journeyman plumber’s license renewal:

From our main page, you can click on “Licensing” in the menu bar at the left or click on “Renew Journeyman Plumber License Online” on the upper right quadrant of the screen.

Step 1: Under “Building Codes Division” > “Plumber, Journeyman,” select **Renew**.

Step 2: Enter your license number and the PIN code found on your renewal notice. Select **Submit**.

Step 3: The first time you use the system, it will ask you to register. Enter the information requested and select **Register**.

(Write your user name and password on your renewal notice and keep it in a safe place. You’ll need it to access your account in the future.)

Step 4: Enter your **user name** and **password** that you established in Step 3, and select **Login**.

Step 5: Select **Renew a License** from the menu on the left-hand side of the screen, find your journeyman license, and select **Continue**.

Step 6: The program will walk you through a series of questions. Please verify your information before you proceed with payment.

Step 7: To finalize your application, enter your payment information and select **Submit**. Online renewals require a Visa or MasterCard.

In the future, just enter your user name and password to be transferred to a page with your personal licensing information.

If you prefer, you can still renew the old-fashioned way, by mailing the information to the BCD office. ■

Tri-county code-forum Q&A's

You can find more information about Tri-County Code Forums on the division's [Web site](#).

News Line, *January-March 2005*



December forum Q&A

Q How does Chapter 13 relate to a new air-conditioner installation on an existing building? Is the minimum EER rating 12.5 or 10.9? The footnotes to Table 13-N on page 140.36 of the 4/1/04 version of Chapter 13 refer to "New Construction" and "replacements." Which category would apply in our case? This is not a replacement but a new system, including all new ducts, for an existing building. This unit will provide additional cooling and ventilation for an existing tenant space and serve a newly created tenant space within an existing building.

A Use the calculation for new construction.

Q At the September meeting, we presented a question about the attachment of non-load-bearing partition walls through a suspended ceiling tile system. Can you follow up on this item so that we can get this resolved?

A The panel considers this a cosmetic installation. The panel finds this installation acceptable for the tri-county region — with the understanding that a final determination will be made when the new ASME standard for suspended ceiling becomes available.

Q I need further clarification on a ventilation question related to the April 8 forum and answered in the August-October 2004 News Site, specifically, Oregon Structural Specialty Code, Section 1505. Can alternate ventilation (gable end vents or extra vents in non-vaulted areas) be installed to compensate for any blocked or restricted soffit vents caused by insulation-filled rafter or scissor truss cavities to achieve a 150:1 venting requirement? Any 2x6, 2x8, 2x10 rafter for a vaulted ceiling is simply too small to allow for R-30 fiberglass batt insulation and allow a 1-inch air gap. (R-30 = 9¼ inches for high-density fiberglass insulation, 2x10 = 9¼ inches — there is no room for air gap.) Any scissor truss is only 3½ inches at the soffit vent, and there is no way to achieve either R-30 or the required air gap for the first 18-36 inches of the scissor truss cavity (depending on pitches). There is a conflict among structural codes that allow 2x4 trusses or 2x6, 2x8, and 2x10 rafters, the insulation requirements,

and ventilation requirements. The insulation gets crammed into rafter spaces and venting is blocked. When scissor trusses or rafters smaller than 2x12s are used, the plans examiner should know that the soffit vents will be blocked. Shouldn't this call for alternate venting? How do we meet all three requirements? We have had call-backs on houses that were signed off as code compliant but now have high moisture build-up in the attics and mold growth on roof sheeting. Obviously, the current venting is not working!

A The code allows for the compression of roof insulation in sloped roof assemblies in proximity to eave vents. The code also requires the installation of "baffles" in order to maintain cross ventilation.

Q Why do I need to be present for the electrical inspector to do his job? I left my phone number on the message machine for him to call if he has any questions. The homeowner was home, but the inspector didn't knock loud enough to be heard and now he is asking for me to pay a re-inspect fee. The job is an hour's drive from my home and with no guarantees of his exact arrival time, I find this extremely inconvenient.

A Someone over the age of 18 needs to be present to allow the inspector in. Correction notices will be left at the home or mailed to the homeowner. If you wish to dispute the inspection charges, contact the jurisdiction directly.

Q Under the UBC, Appendix 29 set the occupant load factor for determining the required number of toilet fixtures; it was often significantly different than the load factor in Table 10A. The IBC says the number of occupants "shall be determined by this code." Are we to use table 1003.2.2.2 to determine the occupant load for determining toilet fixtures? What about occupancies not listed there (e.g., nurseries for day care)?

A You cannot arrive at an occupant load in Chapter 29. Use Chapter 10. The OSSC, 2902.1, states that for occupancies not specifically listed in table 2902.1, the building official shall make individual determinations. As such, designers should consult their local jurisdiction when there is a question as to the appropriate category. ■



BCD launches new online services: BuildingPermits.Oregon.gov

Note: Due to the cancellation of the December 15 One- and Two-Family Structural Code Forum, we are reporting on the new development in BCD online services to substitute for the usual forum Q&A.

As part of the Governor's Regulatory Streamlining Initiative, the Building Codes Division is implementing the first stages of a multi-phased statewide electronic permitting system that will eventually allow customers to apply and pay for permits online.

New Web-based services developed for the initial stages of the project are already available at BuildingPermits.Oregon.gov. Using the site, contractors can:

- Apply for and purchase minor labels.
- Obtain information about purchasing electrical, plumbing, and mechanical permits in the pilot jurisdictions.
- Locate the correct building department for a project by entering an address in the "Address Locator."
- Link to permit forms and contact information in the pilot jurisdictions.

The e-permitting pilot is a collaborative effort of the Building Codes Division and six building departments in the Portland area, including those of Portland, Beaverton, Milwaukie and Hillsboro; and Clackamas and Washington counties. The division is developing and hosting the site.

The second stage of the project, to start in May, will allow users to purchase over-the-counter permits online. Initially, this system will be available exclusively to contractors for purchasing the most common plumbing, electrical, and mechanical permits. Users will be able to go online, complete a permit application, pay by MasterCard or Visa, and request an inspection.

"Currently, BuildingPermits.Oregon.gov is helpful for contractors dealing with the frustration of determining which of the many tri-county building departments has jurisdiction over a particular project," said Nathan Phillips, Electrical Board chairman. The site gives easy access to permit application forms and information in the jurisdiction.

"This program will be a good proving ground to determine the requirements for the statewide system that is the long term goal," said BCD Administrator Mark Long.

The long-term plan is to expand the system to include access to permitting in all jurisdictions statewide and eventually bring plan review into the system. The permit site will link to the new licensing system at BCD and other useful functions.

"Piloting these online services in the tri-county region makes sense," said Long. "Working together, the construction industry and government agencies have instituted many changes to streamline government, lower construction costs, and get the economy moving again, including standardizing forms, fees, and procedures throughout the tri-county area. The next step in reducing the regulatory time for construction is to process the transactions online instead of on paper."

For more information, contact Joan Stevens-Schwenger, Tri-County Service Center manager, (503)872-6731.

Fast facts for BuildingPermits.Oregon.gov

Phase 1:

- Minor label e-pay
- Allows contractors to easily apply and pay for selected statewide permits.

Phase 2:

- Address locator (pilot)
- Use a search function to identify appropriate building department and download permit forms.

Phase 3:

- Over-the-counter permit (pilot pending; May 1 projected activation)
- Expand pilot to regions around the state allowing contractors to purchase over-the-counter permits and schedule inspections.

Phase 4:

- Statewide interoperability (planned)
- Expand the pilot to include building departments across the state

Phase 5:

- Plan review (planned)
- Expand to all permits statewide including electronic submission and approval of building plans. ■



November 18 code forum Q & A

Q In a description of the minor label program, there is a list of exclusions listing what the minor label program does not include. One exclusion on the list is “accessibility retrofit.” Please explain what this means.

A This has to do with an existing plumbing installation that is being brought up to code regarding the structural code requirements for disabled accessibility.

Q Is there an apprenticeship for solar hot water installers?

A Yes. There are two new apprenticeships: one for solar electric and another for solar plumbing. Call the Bureau of Labor and Industries, which is the agency responsible for apprenticeships, at (503) 731-4200, for information.

Q Do in-ground, double-check valve assemblies have clearance requirements required by code?

A Yes. Reference Section 603.3.3 states that there must be one-foot of clearance below a device in box or vault. Table 6-2 also addresses a one-foot clearance.

Q Can I use polyethylene piping manufactured to the ASTM F810 standard for exterior rain drains?

A Yes. The code reference is 701.1.6, which allows CPE piping for exterior building storm drains. Also see Table 14-1. PVC piping ASTM D2729 is not approved for exterior rain drains.

Q If I install a hose bib in an uninsulated wall of a garage, do I have to put in a stop-and-waste to allow draining in the winter for freeze protection?

A No. Freeze protection is the goal, and there are a number of options and products to ensure freeze protection, such as heat tape. However, stop-and-waste valves are most commonly used.

Q Can I run half-inch-diameter water pipe to a residential fire sprinkler in a stand-alone or multi-purpose system?

A No. You must run a minimum ¾-inch pipe to the sprinkler. See NFPA 13D, Section 4-4.2. Half-inch piping may only be used when an engineered multi-port sprinkler fitting is used.

Q What is a macerating toilet? Is it an approved toilet?

A A macerating toilet has a grinder pump and sump built in. The discharge pipe may be as small as three-quarter-inch or one-inch in diameter. It is approved for private use in the new 2005 Oregon plumbing code. Current use may be approved as an alternate method under Section 301.2.

Q The new flammable, vapor-ignition-resistant gas water heaters have special combustion chambers. Are they still going to be required to be on a stand in a garage?

A No, they will not be required to have a stand when installed in a garage.

Q One-stop permits — can we ask for separate permits for site work and (inside) plumbing? Can we apply this to one- and two-family dwellings or low-rise residential structures?

A We will refer this to the building officials for discussion. The legal requirement is for plumbing contractors or their representatives to sign for the work that they do. Ask for a signed application from each contractor or representative.

Q Do you need a permit if you install a pump in a crawlspace to clear a flooded area?

A Yes.

Q Can you hook up the pump to the exterior storm drain?

A The pump should be hooked up to a line that can accommodate the discharge without causing further flooding. There are no code requirements for the type of line it should discharge into.

Q Situation: We are doing a small remodel in which we are redoing water pipes and setting a shower. In the process of removing the old shower, we find that the venting to the toilet (that we are not working on and not hired to work on) is not up to code. Would an inspector make us bring it up to code? Or does the inspector inspect what is permitted only?

A See 918-750-0120 — Application to Existing Buildings. If the installation met code when it was installed, it would not have to be changed unless it was determined to be unsafe. If the previous installation (discovered during the remodel, but not included in the permit) is in violation, the inspector should write the correction for the homeowner.

Q When a backwater valve is required, is there a separate cross-sectional requirement to meet the branch line the device is protecting? The building-drain cross-sectional requirement is already met.

A No. 904.1 states that when a vent or vents through the roof meet the aggregate cross-sectional area of the largest required building sewer, no additional venting is required for the backwater valve. ■

**TRI-COUNTY
SERVICE CENTER**



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December 14 code forum Q&A

Q Section M1403.2 of the *Dwelling Code* indicates heat pumps shall be installed 3 inches minimum above grade to permit free drainage of defrost water. Section M1413.1 indicates evaporative coolers shall be installed on a level platform or base not less than 3 inches above adjoining ground. Regarding outdoor units on split system air-conditioning installation, are 3 inches required if the unit is sitting on a patio or driveway?

A Sections M1403.2 and M1413.1 specify requirements for heat pumps and evaporative coolers, but do not address exterior mounting of an air-conditioning unit. The tri-county mechanical forum panel agree that a sloped patio or driveway meets the intent of the code, which is to provide adequate protection from corrosion and the damaging effects of collecting water. Unless required by the manufacturer in its installation instructions, an additional raised pad is not necessary. Leveling of the unit can be accomplished with mounting pads or factory-installed leveling devices.

Q What is the maximum length of non-pressure-tested gas piping allowed in a repair or addition? Must all repaired or added pipe be in the same room and not pass through walls or floors, etc.?

A Section G2416.1.2 requires that all repairs and additions be tested, but allows local jurisdictions to approve alternate methods of testing.

Alternate methods of testing typically involve soap-testing the joints or using an electronic gas sniffer. Historically, these alternate methods have been allowed for piping additions of six feet or less (including the addition of two fittings), but the exception in G2416.1.2 allows the local jurisdiction extra latitude to extend that length (and number of fittings) when deemed appropriate. Minor repair of existing piping systems (less than six feet long, including the replacement of two fittings) was allowed without a permit. Although this unwritten standard would only apply to repair work, most jurisdictions consider this common practice, and the panel agreed.

Although a pressure test may not be required, and inspection may not be warranted, an alternate leak-detecting method must be used, whether existing piping is being repaired or piping is being added to an existing system.

Without question, an addition or alteration to an existing gas system requires a permit and inspection. Check with your local jurisdiction for its policy on minor repair work.

As far as whether or not repairs or additional piping must be in the same room, the panel agreed that passing of piping through walls or floors is acceptable as it relates to testing alternatives.

Q Can we get clarification on the PVC primer coloration issue? We use PVC piping for most of our venting needs, and some jurisdictions allow us to use clear primer, but others say it must be purple. The dwelling code does not specify a color and the OMSC (Section 801.20) states: "The primer shall be a contrasting color." The plumbing code requires the primer for all PVC installations to be purple. What's the answer?

A Use a contrasting color for the primer. If you have concerns or have another product or primer that you wish to use, consult your local building department first. And always follow the venting requirements of the appliance manufacturer.

Q What is the intent of the phrase "where damage to any building component will occur," found in Section 307.2.3? In this case, cooling coil is being installed above an office. The unit will be exposed, because no ceiling is being installed. If the floor is carpeted, do the provisions of Section 307.2.3 apply? What if the flooring is vinyl? Wood? Concrete? Does the code consider situations in which portable computers or computer servers are installed under such equipment?

A An auxiliary drain pan or a secondary drain is required for locations where condensate overflow could damage a building or its contents. The auxiliary drain pan or secondary

drain catches condensate spilling from the primary drain, which protects the building from structural and finish damage.

Q Some cooling equipment comes with an internal drain pan installed in the unit that has a main drain and an overflow outlet. Does such equipment comply with Section 307.2.3, item 1, which requires an overflow pan not less than three inches larger than the unit?

A No, your scenario would not meet the requirements specified in item 1 of Section 307.2.3 (Dwelling Code, Section M14511.3.1). But, Section 307.2.3 (M14511.3.1) offers three options for providing an auxiliary drain pan or secondary drain system, and it appears your scenario fits under item 2.

Item 2: A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection.

Q If a condensate pump is not protected by an overflow pan, is a secondary float switch required in the pump? If the pump is equipped with an overflow switch, does it comply with the intent of this section without the protection of an overflow pan?

A The code does not require an overflow pan for a condensate pump or a secondary float switch, but if a pump had an overflow switch, it would comply with the intent of the code.

Q Can an installer use an uninsulated supply and return duct in a garage under concrete?

A No, the underground duct has to be properly installed and must be insulated. Insulation must be approved for below-grade use. Underground ducts shall be installed in accordance with Section 603.8, of the OMSC (Section M1601.1.2 in the Dwelling Code). ■

Previous issues available on Web site

Previous issues of *News Connect* (mechanical), *News Flash* (electrical), *News Site* (homebuilding), *News Splash* (plumbing), and *News Line* (commercial building) are available on the BCD Web site. Go to www.bcd.oregon.gov, then click on “Publications.”



Highlights of the December 9 code-change class

John Powell's presentation discussed rule and law changes and code interpretations that were issued during the last biennium. Information about most of these topics can be found on the Building Codes Division Web site: www.bcd.oregon.gov. Among other things, Powell's class covered:

- Administrative rule changes pertaining to the 2005 code.
- Revised code sections related to electrical codes in Chapters 11 and 13 of the 2005 OSSC.
- 2003 legislation affecting the electrical industry, including HB 2564, which authorized combined license authority; SB 822, which expanded the definition of telecommunication utility to include service providers; HB 2717, which changed product-certification requirements; and SB 906, which created many new requirements affecting contractors and inspectors.
- A review of the minor label rules and scope of work.
- Draft administrative rules outlining the requirements surrounding electrical plan review.
- An inspectors' quick-reference guide for the 2005 NEC and 2005 ORSC.
- A review of all recent interpretations.

Code chief issues interpretations

Because the December 9 code-change class did not follow the Tri-County code forum "question and answer" format, we are publishing the chief's two most recently issued interpretations instead of the customary questions and answers.

Subject: Limited Maintenance Specialty Contractors
Code section: ORS 479.630OAR 918-282-0050
Date: August 11, 2004

Question:

Are licensed limited maintenance specialty contractors (LMS) performing lighting retrofits allowed to replace a magnetic ballast with an electronic ballast without additional licensure? Can an LMS contractor work in signs?

Analysis:

The issue of retrofitting or upgrading lighting fixtures has been raised frequently due to the incentives offered by utility companies, and the energy savings generated by moving away from the old style magnetic ballasts. Oregon Revised Statute 479.630(12) grants authority to an LMS contractor to change ballasts. Additional clarification is provided in Oregon Administrative Rule 918-282-0050(1)(b) allowing ballast change-out by replacement and also maintenance inside the shell of the lighting fixture.

Determination:

LMS contractors can upgrade lighting fixtures by changing from magnetic to electronic-type ballasts. They may also perform maintenance within the shell of the fixture but may not permanently change fixtures from incandescent to fluorescent. LMS contractors cannot relocate any existing fixtures or add new lighting fixtures. Maintenance of the fixture is restricted to inside the shell of the fixture and is limited to ballasts, lamp-holders and equipment that is part of the lighting fixture. An LMS contractor cannot perform maintenance, repair or replace ballasts or transformers in a sign.

Subject: Energized Circuit Breakers

Code edition: 2002 Oregon Electrical Specialty Code

Date: October 1, 2004

Question:

Is it permissible to land phase conductors on the appropriate circuit breakers before completion of the electrical installation and attachment of final devices?

Analysis:

The issue of when conductors should be landed on circuit breakers has existed for several years. Depending upon the jurisdiction, inspectors have required breakers to be installed at the rough-in inspection, required conductors to be landed at the rough-in inspection, not allowed breakers to be installed at the rough-in inspection or something in between. Although the 2002 National Electrical Code and Oregon Electrical Specialty Code do not adequately cover this issue, the intent of the Oregon Electrical Safety Law is quite clear. The Oregon Electrical Safety Law's stated purpose is to protect persons and property from electrically caused shocks and fires. Landing a phase conductor on a circuit breaker prior to attaching the final

device or otherwise ensuring the installation is left in a safe condition is a violation of the Oregon Electrical Safety Law (ORS 479.710). Too often, all the circuit breakers have had the phase conductors landed without ensuring that final devices are attached or the installation is in a safe condition. Typically, people turn on all breakers in a panel, looking for a particular circuit, thus exposing themselves to possible electrical shock.

Determination:

Circuit breakers may be installed prior to final attachment of devices but shall not have phase conductors attached unless left in a safe condition such as, being taped off or having a proper wire nut or other insulating type protective device installed. ■

BCD files permanent rules



The division has recently adopted two new rules, the Oregon Electrical Specialty Code and the Oregon Plumbing Specialty Codes. For a complete text and explanation of the newly adopted rules, check the division's [Web site](#).

Amends OAR 918-750-0110 — Adopts the 2005 Oregon Plumbing Specialty Code

Purpose: Adopt the 2005 Oregon Plumbing Specialty Code, which establishes minimum safety standards for the design and construction of plumbing systems in buildings and structures in the state of Oregon. Approximately every three years, the division reviews the current edition of the plumbing code and adopts and amends it as necessary. The adoption of a statewide plumbing code helps ensure that installation and inspection standards are predictable and consistent throughout Oregon.

This rule creates the 2005 Oregon Plumbing Specialty Code (OPSC) by adopting and amending the 2003 Edition of the Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials.

Amends OAR chapter 918, division 305 — Adopts the 2005 Oregon Electrical Specialty Code

Purpose: Adopt the Oregon Electrical Specialty Code (OESC). Approximately every three years, the division reviews the current edition of the electrical code and adopts and amends it as necessary. The Electrical Specialty Code establishes minimum safety standards for the installation, alteration and repair of electrical systems in buildings and structures in the state of Oregon.

This rule adopts and the 2005 National Electrical Code as published by the National Fire Protection Agency as the OESC. ■

Compliance report

The Electrical and Elevator Board found the following violations of the Oregon Electrical Safety Laws in August 2004:

CITY	NAME	VIOLATION	PENALTY
Beaverton	John M. Gaylord	No supervising or journeyman license	\$1,000
Bend	Rodney C. Gibson Rod Gibson Construction	No electrical contractor license, no electrical permit, no supervising or journeyman license	\$3,000
Clackamas	Michael S. Blackmon Accurate Heating, Inc.	No electrical permit	\$3,000
Eugene	Gary E. Johnsen Johnsen Electric, Inc.	No electrical permit	\$1,000
Eugene	Joseph E. Iantorno Integrity Homeworks	No electrical contractor license, no electrical permit, no supervising or proper licenses to make electrical installation	\$3,000
North Bend	Jeffrey E. Lea	No supervising or journeyman license	\$1,000
Oregon City	Portland General Electric	Energized electrical installation without prior approval	\$5,000
Portland	Anatoliy Bogoslavets Accord Electric	Unsafe installation	\$4,000
Portland	Muzak, LLC	Allowed unlicensed individual to make electrical installation (2 violations)	\$4,000
Salem	Jerry L. Abel Abel's Electric	Allowed unlicensed individual to make electrical installation, as supervising electrician, failed to ensure individuals had proper licenses to make electrical installation	\$2,000
Salem	Vernon L. Evans	No supervising or journeyman license	\$1,000
San Leandro, CA	SPH Crane & Hoist, Inc.	No electrical contractor license, no electrical permit	\$2,000
Sherwood	David M. Phipps Fire Protection Services, Inc.	Allowed unlicensed individual to make electrical installation	\$1,000
Vancouver, WA	Nikolay Shmigel CL Electric, Inc.	Allowed unlicensed individual to make electrical installation	\$1,000

The Plumbing Board found the following violations of the Oregon Plumbing Specialty Codes in October 2004:

CITY	NAME	VIOLATION	PENALTY
Battle Ground, WA	Garth Kightlinger Four Star Development, Inc.	Allowing unlicensed individuals to make plumbing installations	\$5,000
Beaverton	Roger W. Worf TYGR Construction	No plumbing business certificate of registration, no plumbing journeyman certificate of competency	\$2,000
Tillamook	Brian D. Clark Clarks Plumbing	Allowed an unlicensed individual to make a plumbing installation (2 violations)	\$2,000

The Director of the Department of Consumer and Business Services found the following violations of the Oregon Specialty Codes in October 2004:

CITY	NAME	VIOLATION	PENALTY
Clackamas	Michael S. Blackmon Accurate Heating, Inc.	Violated a final order	\$2,000
Oregon City	Portland General Electric	Violated a final order	\$1,000
Portland	Muzak LLC	Violated a final order	\$1,250

The Board of Boiler Rules found the following violations of the Oregon Boiler Safety Laws in December 2004:

CITY	NAME	VIOLATION	PENALTY
Fontana, CA	Mark Ramsey Praxair, Inc.	No boiler/pressure vessel business license, no boiler/pressure vessel installation permit	\$2,000
Milwaukie	David Rub Progressive Mechanical, Inc.	No boiler/pressure vessel installation permit (2 violations)	\$2,000
Portland	Michael K. Davis Power Plumbing Co.	No boiler/pressure vessel installation permit (2 violations)	\$2,000

The Electrical and Elevator Board found the following violations of the Oregon Electrical Safety Laws in December 2004:

CITY	NAME	VIOLATION	PENALTY
Aloha	Corie J. Martinez	No electrical contractor license, no electrical permit, no supervising or journeyman license	\$3,000
Eugene	Jim Riggs Source Electrical, Inc.	No electrical contractor license (2 violations)	\$1,000
Forest Grove	Joseph D. Kemper	No electrical contractor license, no electrical permit	\$2,000

Hillsboro	Leonard Sinjin Anterola, III Econo Electric Co.	No electrical permit	\$1,000
Hines	Jack Gerould Jack of all Trades	No electrical contractor license, no electrical permit, no supervising or journeyman license	\$3,000
Milwaukie.....	Alan Brown.....	As supervising electrician, failed to ensure permit was obtained.....	\$1,000

The Plumbing Board found the following violations of the Oregon Plumbing Specialty Codes in December 2004:

CITY	NAME	VIOLATION	PENALTY
Aloha	James Hufton..... Action Builders, Inc.	Allowing unlicensed individuals to make plumbing installations	\$3,000
Gresham.....	Roger L. Olson..... Nursery and Landscape, Inc.	Allowing unlicensed individuals to make plumbing installations	\$1,000
Gresham.....	Joseph A. Brewer	No plumbing journeyman certificate of competency.....	\$1,000
Lake Oswego	Cuong Nguyen..... Natural Landscaping	No plumbing business certificate of registration, no plumbing journeyman certificate of competency.....	\$2,000
Portland.....	Jose L. Rodriguez	No plumbing journeyman certificate of competency.....	\$1,000
Portland.....	Greg Monzo.....	No plumbing journeyman certificate of competency.....	\$1,000

On the move



On February 18, BCD relocated its field office in the Dalles to the fourth floor of the Commodore Building, 312 Court Street, Suite 415, The Dalles, 97058. The staff is enjoying its new centrally located office. ■

Plumbing interpretations



Subject: Approval of non-flush urinals in city, county, state, or federal facilities

Initiated by: Building Codes Division

Request for ruling:

To promote, encourage, and require measures to conserve water in public buildings, and to provide an option where there is limited potable water supplies or sewage waste disposal systems. Interpretive Ruling (ruling) approves the use of nonflushing urinals listed under one or more of the following product standards:

1. American National Standards Institute (ANSI) Z124.9-1994 standard for plastic urinal fixtures.
2. American Society of Mechanical Engineers (ASME) A112.19.2M-1998 standard for vitreous china plumbing fixtures.
3. ASME A112.19.9M-1991 standard for non-vitreous ceramic plumbing fixtures.
4. International Association of Plumbing and Mechanical Officials (IAPMO) Interim Guide Criteria (IGC) 161-2002.

This ruling is made for the sole purpose of allowing installation of non-flushing urinals only in facilities which are owned and operated by a city, county, state or federal government in the State of Oregon.

Applicable code section(s): Sections 301.1.4, 301.2.2, 301.2.3, 301.2.4 & 301.2.5 of the 2000 Oregon Plumbing Specialty Code (OPSC); definition of “insanitary” in section 211.0(3); definition of “Plumbing Fixture” in sections 218.0, 303.0, 310.4, 402.2, section 406.2, 410.0, 601.1, 1001.1, 1003.1, 1003.3, 1004.0, 1005.0, and Table 14-1.

Background:

The division has received requests for approval of non-flushing urinals since 1994. The Plumbing Board denied approval of the product standards for statewide use and approved a limited installation in Oregon parks facilities through an interpretive ruling.

Findings:

This ruling is intended to allow, in facilities that are owned and operated by a city, county, state or federal government in the State of Oregon, an alternate method of urinal installation to that prescribed in the code which requires urinals to be supplied with water for flushing. The OPSC contains no specific provisions for the use of urinals, which do not use water to flush.

Pursuant to OAR 918-750-0140, only the division acting under ORS 455.060 has the authority to grant state-wide alternate method approvals. ORS 455.060 states in relevant part:

- (1) “Any person who desires to furnish any material, design or method of construction of installation in the state, or any building official, may request the Director of the Department of Consumer and Business Services to issue a ruling with respect to the acceptability of any material, design or method of construction about which there is a question under any provision of the state building code....
- (2) “In making rulings, the director shall obtain the approval of the appropriate *advisory board as to technical and scientific facts* and shall consider the standards and interpretations published by the body that promulgated any nationally recognized model code adopted as a specialty code of this state (italics added).
- (3) “A building official or inspector shall approve the use of any material, design or method of construction approved by the director pursuant to this section....” OAR 918-690-0340, which outlines the process by which formal and informal interpretations are obtained upon request, affirms, “Where an issue is formally presented to the *board for technical and scientific find-*

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Electrical interpretations



The following interpretations have been updated to comply with the 2005 Oregon Electrical Specialty Code and will be officially issued April 1. State Electrical Code Chief John Powell has reissued all still-applicable code interpretations and posted them on the [electrical code interpretations Web page](#), and deleted all outdated interpretations in anticipation of the adoption of the new code on April 1.

Subject: Arc-Fault Circuit Interrupters

Source: NEC 2005 Section 210.12

Reference: Oregon Residential Specialty Code and Oregon Electrical Specialty Code

Date of issue: April 1, 2005

Prepared by: John Powell, chief electrical inspector

Question:

How are arc-fault circuit interrupters to be used in a remodel situation or with dedicated receptacles, smoke detectors? Also, new construction?

Analysis:

210.12 of the 2005 National Electrical Code clearly requires that all branch circuits supplying 125 volt 15 and 20 ampere outlets installed in a dwelling unit bedroom shall be protected by an AFCI. Generally, this would be accomplished through the use of an AFCI circuit breaker installed in the panelboard or adding an AFCI device within 6 feet of the panelboard as allowed by 210.12 exceptions.

Smoke detectors being installed on circuits protected by AFCI devices raises the concern that a nuisance trip or an actual fault may result in a smoke detector not functioning due to a discharged or removed battery. The requirement for the smoke detector to have a 10-year battery has been clarified by the State Fire Marshal's office and requires the smoke detector to have a 10-year battery only if the smoke detector is solely battery powered.

Additionally, concerns have been raised about dedicated medical equipment and other life safety devices being on an AFCI protected circuit.

Additional questions have arisen concerning branch-circuit protection requirements when adding new outlets in an existing dwelling units or performing service upgrades.

Determination:

In a situation in which an existing dwelling unit bedroom circuit is being extended or a remodel is taking place that does not result in the exposure of electrical wiring by the removal of interior wall and ceiling finishes, the use of AFCI circuit breakers shall not be required; however, AFCI receptacles, when available, shall be used. In the event that interior walls and ceiling finishes of bedrooms are removed, then AFCI devices shall be required for all bedroom outlets other than those dedicated to the use of smoke detectors, nurse call, fire alarm, and medical equipment.

Replacement or upgrading of the service or panelboard shall not require that existing circuit breakers for dwelling-unit bedroom circuits be replaced with AFCI devices.

New construction shall meet the requirements of the prevailing Oregon Electrical Specialty Code and Oregon Residential Specialty Code; however, smoke detectors, nurse call, fire alarm, or dedicated medical equipment shall not be required to be installed on AFCI-protected circuits.

Switches that are independent of the bedroom circuit, such as a switch that controls outside lighting, shall not be required to be protected by an AFCI device.

Subject: 334.12(A)(2), 2005 National Electrical Code

Source: 2005 Oregon Electrical Specialty Code

Reference: Section 334.12(A)(2), 334.15(A) through (C), 334.30(B)(2) and 300.21, 300.22

Date of issue: April 1, 2005

Prepared by: John Powell,
Chief Electrical Inspector

Question:

Does Section 334.12(A)(2) of the 2005 National Electrical Code prevent the use of NM cable above a drop or suspended ceiling?

Analysis:

The 2005 National Electrical Code, Section 334.12(A)(2) states: NM, NMC, and NMS cables shall not be exposed in dropped or suspended ceilings in other than one- and two family and multi-family dwellings. The 2005 National Electrical Code Handbook provides that cables that are “exposed” are those that remain accessible after construction. Cables that are “exposed” are subject to the requirements of 334.15(A) through (C). Additionally, 300.21 requires that electrical installations shall not substantially increase the spread of fire.

Determination:

NM, NMC and NMS cable used in a non-rated, dropped or suspended ceiling is allowed in one- and two-family and multi-family dwellings, only. Additionally, in one and two-family and multi-family dwellings the requirements of 334.15(A) through (C) must be met. NM cables will not be allowed to be run across ceiling wires but must follow the structure of the building and according to Section 334.30(B)(2) are limited to an unsupported length of 4.5 feet where used to feed luminaire(s). Additionally, a structure that changes the use of a dropped or suspended ceiling to a duct, plenum, or other air-handling space requires the provisions of 300.22 to be met. Structures that fall under the provisions of the 2005 Oregon Electrical Specialty Code, National Electrical Code, Section

334.12(A)(2), must use approved wiring methods such as MC or AC cable or other approved methods.

In remodel situations, where the existing wiring method is NM cable, the use of NM cable for extensions or alterations to the existing wiring shall be allowed. New circuits added to an existing structure that utilizes NM cable shall be of other approved methods.

Oregon Structural Specialty Code interpretations

Subject: Periodic Special Inspections

Code section: Sections 1702.1

Code edition: 2004 Edition of the Oregon Structural Specialty Code (OSSC) which is based on 2003 International Building Code.

Date: Dec. 17, 2004

Questions:

(Requested by City of Portland Building Department)

1: In Chapter 17 of the 2003 IBC, is it the intent of the “special inspection, periodic” requirements to allow a reasonable sampling of those components requiring periodic special inspection to be inspected?

2: If the answer to question #1 is no, is it the intent of “special inspection, periodic” to require that all elements of those components of work requiring this level of special inspection be inspected?

3: If the answer to #2 is no, is it the intent of “special inspection, periodic” to require that all elements of a sampling of components be inspected?

Answers

1: Yes.

2: Depends upon the scope of the Periodic Special Inspections as outlined by the design professional. For more discussion, please see the interpretation provided below.

3: Same as in (2) above.

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1997 Uniform Building Code provided a clearer and better description of *Periodic Special Inspections* compared to that provided in the 2003 International Building Code. Descriptions from both of these codes are reproduced below:

1997 UBC (Section 1701.6.2): *Some inspections may be made on a periodic basis and satisfy the requirements of continuous inspection, provided this periodic scheduled inspection is performed as outlined in the project plans and specifications and approved by the building official.*

2003 IBC (Section 1702.1): *The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work has been or is being performed and at the completion of the work.*

The UBC description is self-contained in that it provides all criteria pertaining to *periodic special inspections* in one place. The IBC description is similar but not very clear, and the inspection-schedule requirements which were amended in Oregon to limit their applicability are provided elsewhere (Sections 1704 and 1705) in the IBC code *building categories (III and IV)*.

Based on the above, following interpretation is made:

Periodic special inspections:

- are made on a periodic basis, the periodicity being defined by the design professional through several possible means such as the project specific Quality Assurance Plan, written communications, verbal communications, etc.
- are considered equivalent to continuous inspections in terms of scope of inspections, without requiring the inspector to be present at all times
- to be performed according to the inspection schedule, which may include frequency of inspections or the sampling of components for inspections or any other instructions.

The inspection schedule including periodicity is to be provided by the design professional based upon the nature of materials or components that needs to be inspected.

For projects that are not required by the state statute or laws to be designed by design professionals, the periodicity and sampling of periodic special inspection may be established by the building department having jurisdiction, consistent with the requirements within the state adopted building code.

Subject: Special inspections for seismic resistance

Code section: Sections 1707

Code edition: 2004 Edition of the Oregon Structural Specialty Code (OSSC), which is based on 2003 International Building Code.

Date: February 10, 2005

As per requirements of Section 1707 of the 2004 OSSC (based on 2003 IBC), Special Inspections listed in the table below are the mandated minimum Special Inspections for seismic resistance. And they:

- are not required for minor nature work, Group R-3 occupancy and group U occupancy that are accessory to a residential use unless specified or required by the design engineer or required by the building official based on project specific conditions.
- are required for buildings in Category III or IV (Essential facilities, Special Occupancy etc.) unless otherwise required by the design engineer or the building official for buildings in other categories based on project specific design conditions.

	Seismic Design Category C	Seismic Design Category D	Seismic Design Category E	Seismic Design Category F
(I) Seismic Force Resisting System				
(a) Structural Steel: <ul style="list-style-type: none"> for structural welding. for floor/roof deck welding and for single-pass fillet weld $\leq 5/16$ inch 	Continuous Periodic Inspection	Continuous Periodic Inspection	Continuous Periodic Inspection	Continuous Periodic Inspection
(b) Structural Wood: required for <ul style="list-style-type: none"> field gluing of elements in the system. nailing/bolting/anchoring and other fastening of components in the system. Exception: when the nailing spacing > 4 inches. 	Continuous Periodic Inspection	Continuous Periodic Inspection	Continuous Periodic Inspection	Continuous Periodic Inspection
(c) Cold-formed steel framing: required for welding of the system elements, screw attachment, bolting, anchoring & other fastenings.	Periodic Inspection	Periodic Inspection	Periodic Inspection	Periodic Inspection
(II) Designated seismic systems/ Architectural Components				
(a) Anchorage of storage racks with importance factor (I_p) of 1.5 and height ≥ 8 feet.	None	Periodic Inspection	Periodic Inspection	Periodic Inspection
(b) Anchorage of access floors with importance factor (I_p) of 1.5	None	Periodic Inspection	Periodic Inspection	Periodic Inspection

	Seismic Design Category C	Seismic Design Category D	Seismic Design Category E	Seismic Design Category F
(c) In buildings of height > 30 feet, special inspection is required for the erection and fastening of the following: <ul style="list-style-type: none"> exterior cladding weighing > 5 psf interior/ exterior veneer weighing > 5 psf interior nonbearing walls weighing > 15 psf exterior nonbearing walls including glazed curtain walls. 	None	Periodic Inspection	Periodic Inspection	Periodic Inspection

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(III) Mechanical and Electrical Components				
(a) Anchorage of electrical equipment in emergency or stand-by systems (emergency or stand-by systems include elements of the power system necessary to maintain integrity of the power supply after failure of the regular power supply and may include the following: transfer switches, generators, inverters, uninterruptible power supplies, switchboards, motor control centers etc.).	Periodic Inspection	Periodic Inspection	Periodic Inspection	Periodic Inspection
(b) Anchorage of all other electrical equipment systems.	None	None	Periodic Inspection	Periodic Inspection
(c) Installation of piping systems carrying: <ul style="list-style-type: none"> • Flammable contents • Combustible contents • Highly toxic contents • Installation of associated mechanical units 	Periodic Inspection	Periodic Inspection	Periodic Inspection	Periodic Inspection
	Seismic Design Category C	Seismic Design Category D	Seismic Design Category E	Seismic Design Category F
(d) Installation of HVAC ductwork containing hazardous materials	Periodic Inspection	Periodic Inspection	Periodic Inspection	Periodic Inspection
(e) Installation of following components associated with items (a) through (d) above when importance factor (I_p) is 1.5 (i.e., they are required to be operational through and after an earthquake event): <ul style="list-style-type: none"> • components using combustible energy source. • electrical motors, transformers, switch-gear unit substations and motor control centers. • reciprocating and rotating-type machinery. • piping distribution system 3 inches and more in diameter. • tanks, <i>boilers</i>, heat exchangers and pressure vessels. 	Periodic Inspection	Periodic Inspection	Periodic Inspection	Periodic Inspection

(IV) Testing of Component and its attachment:

- Components and their mounting or anchorage systems, associated with items in III (a) through III (e), above, need to be tested or analyzed.
- Basis of certification is the shake table test.
- Alternatively, an engineering analysis can be provided.
- Special inspector needs to verify in the field that the label on the component conforms to the certificate of compliance.

(V) Fabrication & Installation of Seismic Isolation Systems and energy dissipation system

Periodic Inspection

Periodic Inspection

Periodic Inspection

Periodic Inspection

Subject: Occupancy Classification for Fire Stations.

Code Section: Oregon Structural Specialty Code (OSSC) Section 302

Code edition: 2004 Edition

Date: January 21, 2005

Question:

What is the correct occupancy classification for a fire station?

Answer:

The occupancy classification(s) of a fire station and its various uses shall be determined in accordance with OSSC 302. This allows separate uses to be considered as accessory uses, incidental uses or allows each portion to be individually classified as to use and designed as separated or non-separated mixed occupancies.

Historically, the OSSC has determined that fire stations in their entirety were “B” occupancies. Currently, many fire stations have a shop area for doing minor repairs and also have a commercial type kitchen setup. Combined with the evolution of fire stations into centers for training, and other community activities as well as the fact that persons are sleeping in the same “non-separated” building, the determination of the “B” occupancy classification is no longer appropriate.

The design professional has a variety of choices. Some examples:

Fire station with full-time dedicated staff —

May be considered an R2 occupancy with incidental use of the apparatus space separated as required by Table 302.1.1; or considered R2 and S1 with no separation when meeting the most restrictive construction requirements.

Fire station without dedicated staffing with apparatus bays, training room, and offices —

May be considered a B occupancy with incidental use of apparatus space separated as required by Table 302.1.1. Depending upon the size of the training room, the training room may be considered either accessory use or may be considered either a separated or non-separated mixed occupancy. ■

Confirmation of executive appointments

Board of Boiler Rules (ORS 480.535)

Mike Bradley, Scappose (Boilermaker)

Appointment to 4-year term
Confirmed 11/18/04

Term: 11/22/04 to 11/21/08
Succeeds Steve Nelson

Building Codes Structures Board (ORS 455.132)

Lawrence Hite, Salem (Disabilities Commission representative)

Reappointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/08

Michael McBride, Milwaukie (Owner/manager of commercial & office building)

Appointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/08
Succeeds Dan Kovtynovich

Electrical and Elevator Board (ORS 455.138)

Sherry Asher, Prineville (Electrical equipment manufacturing representative)

Reappointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/08

Thomas Lindberg, Portland (Public member)

Reappointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/08

Michael Casley, Gresham (Journeyman elevator installer)

Appointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/08
Succeeds Frank Regalado

Daniel Maher, Portland

(Journeyman electrician)
Appointment to 4-year term
Confirmed 11/18/04

Term: 07/01/04 to 06/30/08
Succeeds Walter Conner

Thomas Faires, Oregon City (Elevator manufacturing)

Appointment to 4-year term
Confirmed 06/24/04

Term: 07/01/04 to 06/30/06
Succeeds Richard Orr

Mechanical Board (ORS 455.140 and 455.144)

James Culbertson, Portland

(Sheet metal contractor)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/05

David Duncan, Gresham

(Sheet metal installer)
Appointment to 4-year term
Confirmed 11/18/04

Term: 09/24/04 to 07/01/08

Bill Hansen, Salem

(Plumbing industry)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/07

Terry Hurst, Portland

(Natural gas/utility)
Appointment to 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/08

Marcia Karr, Oregon City
(Municipal mechanical inspector)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/07

James Klopfenstein, Salem (HVAC contractor)

Appointment to 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/08

Guy Sperb, Oregon City

(Building official)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/06

Mike Thrapp, Springfield

(Public member)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/06

Bradley Wright, Gresham

(HVAC installer)
Appointment to partial 4-year term
Confirmed 11/18/04

Term: 09/27/04 to 07/01/05

Oregon State Plumbing Board (ORS 693.115)

Jacob Polvi, Bend

(Public member)
Appointment to 4-year term
Confirmed 06/24/04

Term: 02/01/04 to 01/31/08
Succeeds Judy Baumann

Ken Carlson, Portland

(Plumbing inspector)
Reappointment to 4-year term
Confirmed 11/18/04

Term: 07/01/03 to 06/30/07

Darryl Bishop, Tillamook

(Representative of residential
building trade subcontractor)
Reappointment to 4-year term
Confirmed 06/24/04

Term: 02/01/04 to 07/01/04

Scott Caufield, Canby

(Building official)
Reappointment to 4-year term
Confirmed 06/24/04

Term: 07/02/04 to 07/01/08

BCD board meeting dates

Sun	Mon
1	2
8	9

ELECTRICAL & ELEVATOR BOARD

Meets at 9:30 a.m. on the fourth Thursday of every other month:

- March 24
- May 26

BOARD OF BOILER RULES

Meets at 9:30 a.m. on the first Tuesday of each quarter:

- June 7

BUILDING CODES STRUCTURES BOARD

Meets at 9:30 a.m. on the first Wednesday of every other month:

- May 4

*MECHANICAL BOARD

Meets at 9:30 a.m. on the first Wednesday of each quarter:

- June 1

STATE PLUMBING BOARD

Meets at 9:30 a.m. on the third Friday of every other month:

- April 15
- June 17

RESIDENTIAL STRUCTURES BOARD

Meets at 9:30 a.m. on the first Wednesday of each quarter:

- April 6

MANUFACTURED STRUCTURES AND PARKS ADVISORY BOARD

Meets at 9:30 a.m. on the second Thursday of every other month:

- May 12

MEETINGS ARE HELD IN THE SALEM BCD CONFERENCE ROOM AT 1535 EDGEWATER ST. NW.

Meetings may be canceled or rescheduled. Call BCD to check, (503) 378-4133.

*Board appointments have been confirmed for the Mechanical Board.

Tri-County code forum dates

Sun	Mon
1	2
8	9

ELECTRICAL

Meets 4-7 p.m., Thursday

- June 23
- Special 4-hour code-change class*

MECHANICAL

Meets 4-7 p.m., Tuesday

- March 24
- June 2

PLUMBING

Meets 4-7 p.m., Thursday

- June 2

RESIDENTIAL STRUCTURAL

Meets 4-7 p.m., Wednesday

- March 30
- June 1

COMMERCIAL STRUCTURAL

Meets 4-7 p.m. Wednesday

- June 8

CODE FORUM LOCATIONS

PLUMBING, Sunnybrook Clackamas County Auditorium, 9101 S.E. Sunnybrook Road

ELECTRICAL, MECHANICAL, RESIDENTIAL & COMMERCIAL, 501 S.E. Hawthorne, Portland

Plumbing interpretations, continued

ings and then to the *director for decision* under ORS 455.060, a person requesting a formal interpretation is generally responsible for presenting adequate evidence of scientific and technical items related to the questions so the board and director can act.

Here, the Building Codes Division (division) obtained the approval of the plumbing board as to technical and scientific facts by the board's adoption of the standards referred to above. Non-flushing urinal technology is listed under one or more of the above product standards. As such, the only step left to be taken is a decision regarding the question of non-flushing urinal product approval.

Conclusion:

This ruling allows installation of non-flushing urinals in city, county, state, or federal government facilities in the State of Oregon. As Administrator of the division, I approve this ruling. The technical and scientific findings of the State Plumbing Board are accepted and Interpretive Ruling No. 04 - 2 is approved.

Signed by Lewis E. Seagraves on December 22, 2004.

Lewis E. Seagraves, Chairman
State Plumbing Board

Signed by Mark S. Long on December 27, 2004.

Mark S. Long, Administrator
Building Codes Division

440-2666 (3/05/COM)

CODE LINK

STATE OF OREGON • BUILDING CODES DIVISION

CodeLink is a publication of the Building Codes Division, Oregon Department of Consumer & Business Services.

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